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SOV/105-59-5-24/29

AUTHORS: Chilikin, M. G., Larionov, A. N., Venikov, V. A., Chechet, Yu. S., Goryainov, F. A., Drozdov, N. G., Petrov, I. I.

TITLE: Professor G. N. Petrov

PERIODICAL: Elektrichestvo, 1959, Nr 5, pp 91-92 (USSR)

ABSTRACT: This is a short curriculum vitae on the occasion of his 60th birthday and after 35 years of scientific, pedagogic and engineering activity. Petrov was born in May 1899. He finished his studies at the Department of Electrical Engineering of the MVTU (Moscow Higher Technical School) in 1924, and remained then at the Department. From 1924-1941, his main activity was closely connected with the development of transformer building. (VEI (All-Union Electrotechnical Institute) and Moskovskiy transformatornyy zavod (Moscow Transformer Plant)). He solved a number of important theoretical and practical problems. His book entitled "Transformatory" (Transformers) was published in 1934. In 1933 he became Professor, in 1937 he received his degree as a Doctor of Technical Sciences. In 1942 he was granted the honorary title of a Meritorious Scientist and Technician of the RSFSR. For more than 20 years, he conducted the Chair of Electric Machines at the Moskovskiy

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Professor G. N. Petrov

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ordena Lenina energeticheskii institut (Moscow Order of Lenin Power Engineering Institute). From 1932-34 he was Dean of the Department of Electric Machine Building, and from 1955-57 Dean of the Department of Electromechanics at the MEI (Moscow Power Engineering Institute). During the war, he was Director of the MEI, and for 12 years Deputy Director for Scientific and Pedagogic Work. He published a lot of papers on electric machine building. He is a Member of the Moskovskoye pravleniye Nauchno-tekhnicheskogo obshchestva energeticheskoy promyshlennosti (Moscow Executive Committee of the Scientific and Technical Society of the Power Industry), and a Member of the Central Executive Committee of the same Society. In 1950 he was elected Deputy of the Moskovskiy gorodskoy sovet deputatov trudyashchikh (Moscow City Council of the Workers' Deputies). He is President of the Provisional Commission for Electric Machines at the GNTK SM SSSR, and a Member of the Uchenyy sovet nauchno-issledovatel'skogo instituta elektropromyshlennosti (Scientific Council of the Scientific Research Institute of Electrical Industry). He is President of the Otdeleniye energeticheskikh i mashinostroitel'nykh nauk nauchno-tekhnicheskogo soveta Ministerstva vysshego obrazovaniya SSSR (Department of Power Engineering and Machine Building Sciences

Card 2/3

Professor G. N. Petrov

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of the Scientific-technical Council at the Ministry of Higher Education of the USSR) and Chief Editor of the periodical "Nauchnyye doklady vysshey shkoly" for the section "Elektromekhanika i avtomatika", and a member of the editorial staff of the periodical "Vestnik elektropromyshlennosti". For many years he was President of the Experts' Commission of the VAK of Electrotechnics. From 1947-53 he was Chief Editor of the periodical "Elektrichestvo". He bears the following orders: Order of Lenin, "Red Star", "Badge of Honor" and various medals. Twice he received the Stalin Prize for papers on the building of transformers. There is 1 figure.

Card 3/3

**CIA-RDP86-00513R000516410002-2"**

GORYAINOV, F.A., kand.tekhn.nauk

Large amplidynes. Vest. elektroprom. 33 no.3:18-24 Mr '62.  
(MIRA 15:3)  
(Rotating amplifiers)

KUZNETSOV, B.I.; GURIN, Ya.S.; GORYAINOV, F.A., prof., red.

[Electrical machinery; d.c. machines, asynchronous motors,  
1961-1963] Elektricheskie mashiny; mashiny postoiannogo  
toka, asinkhronnye elektrodvigateli, 1961-1963. Moskva,  
1964. 263 p. (MIRA 18:5)

1. Akademiya nauk SSSR. Institut nauchnoy informatsii.

GORYAINOV, F.A., prof.; TOKAREV, B.F., kand.tekhn.nauk

Power limit of an amplidyne. Elektrotehnika 36 no.1:8 Ja '65.

(MIRA 18:3)

GORYAINOV, F.A., prof.; SERGEYEV, V.D., inzh.

Thermal design of single-hull two-machine units. Elektrotehnika  
36 no.6:21-24 Je '65. (MIRA 19:7)



GORJAINOV, G.F. (Khabarovsk)

More about the depth of footings in heaving soils. Osn., fund.1  
mekh.grun. 2 no.3:26 '60. (MIRA 13:7)  
(Foundations)

GORJAINOV, G.F.

The depth of the sinking of foundations. Osn., fund. i mekh.  
grun. 4 no.6:25-26 '62 (MIRA 16:1)  
(Foundations)

GORYAINOV, I.N.

Hydrothermal pyrrhotite-chalcopyrite mineralization in the middle  
Avam and in the upper Khugdyukant Rivers. Trudy NIIGA 123:166-  
178 '61. (MIRA 14:10)

(Siberian Platform--Pyrrhotite)

(Siberian Platform--Chalcopyrite)

GORVAINOV, I.N.

Textures originating during supergene disulfidation of pyrrhotite.  
Zap. Vses. min. ob-va 93 no.1:74-80 '64 (MIRA 18:2)

GORYAINOV, I.N.

Characteristics of changes in the normative composition of ores  
in the Talnakh deposit along the vertical. Dokl. AN SSSR 164  
no.1:174-176 S '65. (MIRA 18:9)

1. Nauchno-issledovatel'skiy institut geologii Arktiki.  
Submitted May 17, 1965.

GORYAINOV, I.S.

GORYAINOV, I.S. Geroy sotsialisticheskogo truda.

Work organization in operating annular kilns on two fires. Stroil.  
mat. 3 no.4:32-33 Ap '57. (MLRA 10:6)

1. Instruktor передовых методов по обжигу кирпича Черемухин-  
ского кирпичного завода.  
(Hoffmann kiln) (Brickmaking)

GORJAINOV, I.S. Geroy Sotsialisticheskogo Truda

Produce more bricks for construction projects. Gor.khoz.Mosk.  
31 no.6:33-35 Je '57. (MIRA 10:7)

1. Instruktor peredovykh metodov obzhiga kirpicha Cheremushkin-  
skogo kirpichnogo zavoda.  
(Moscow--Brick industry)

GORJALNOV, K.E., prof., doktor tekhn. nauk

Coke-gas melting of mineral raw materials. Stroi. mat. 11.  
no.2:12-13 F '65.  
(MIRA 18:3)



GORYAINOV, K.K.

Let's raise one million ducks yearly. Ptitssevodstvo 9  
no.8:22-25 Ag '59. (MIRA 12:12)

1. Direktor Daubikhinskogo sovkhosa Primorskogo kraya.  
(Ducks)

GORJAINOV, L.A., Assistant; KUMSKOV, V.T., dots.

Convective components of complex heat exchange at high temperatures. Sbor. LITZHT no. 160:234-240 '58. (MIRA 12:5)  
(Heat--Transmission)

GORJAINOV, L.A., assistant

Investigating complex heat exchange in a channel during the  
cooling process. Sbor.LIIZHT no.160:241-250 '58.  
(MIRA 12:5)

(Heat exchangers)

GORJAINOV, L. A., Candidate of Tech Sci (diss) -- "Investigation of the complex heat exchange in a cooled channel". Moscow, 1959. 12 pp (Min Transportation USSR, Moscow Order of Lenin and Order of Labor Red Banner Inst of Railroad Transport Engineers im I. V. Stalin), 150 copies (KL, No 20, 1959, 112)

GORYAINOV, L.A., inzh.; KUMSKOV, V.T., kand. tekhn. nauk

Calculating the radiant component of combined heat exchange. Trudy  
MIIT no.112:130-140 '59. (MIRA 13:2)  
(Heat--Radiation and absorption)

KUMSKOV, V.T., kandtekh.nauk, dotsent; GORYAINOV, L.A., assistant

Concerning the features of complex heat exchange. Trudy MIIT  
no.125:104-121 '60. (MIRA 13:10)  
(Heat--Transmission)

24,5200

S/649/61/000/139/008/018  
1028/1228

AUTHOR: Goryainov, L. A.

TITLE: On the investigation of complex heat exchange in a cooled duct

SOURCE: Moscow. Institut inzhenerov zheleznodorozhnogo transporta. Trudy, no. 139 1961.  
Teoriya podobiya i yeye primeneniye v teplotekhnike; trudy pervoi mezhvuzovskoy konferentsii, 101-105

TEXT: The paper treats the case of complex heat exchange (defined as the simultaneous heat transfer by convection and radiation from a moving radiant medium) in the absence of combustion processes, a case usually overlooked. An invariant relationship, obtained by similitude methods from the differential equations describing the motion and the heat exchange of a radiant medium, is presented, and experimental work conducted for the elucidation of this implicit relationship at the MIIT is described. It is found that the ratio  $\alpha_{tot}/\alpha_{conv}$ , where  $\alpha_{conv}$  = coefficient of heat transfer by convection,  $\alpha_{tot} = \alpha_{conv} + \alpha_{rad}$  = total coefficient of heat transfer, is practically constant. Personalities mentioned are V. N. Adrianov and S. N. Shorin.

✓B

ASSOCIATION: Moskovskiy institut inzhenerov zheleznodorozhnogo transporta (Moscow Institute of Railway Transport Engineers)

Card 1/1

GORYAINOV, L.A.

Study of complex heat exchange in a cooled canal. Trudy MIIT no.139:  
101-105 '61. (MIRA 16:4)

1. Moskovskiy institut inzhenerov zheleznodorozhnogo transporta.  
(Heat--Transmission) (Thermodynamics)



TEBENIKHIN, Ye.F., dots.; GORYAINOV, L.A., kand. tekhn. nauk

[Design of water-treating systems; methodological manual  
for graduating students of the Power Engineering Faculty]  
Proektirovanie vodoprigotovitel'nykh ustanovok; metodiches-  
skoe posobie dlia diplomnikov energeticheskogo fakul'teta.  
Moskva, Mosk. in-t inzhenerov zhel-dor. transporta, 1963.  
84 p. (MIRA 18:3)

L 62555-65 EWT(1)/EPF(c)/EPF(n)-2/ENG(m) Pr-4/Ps-4/Pu-4 EN

ACCESSION NR: AT5016481

UR/2649/65/000/189/0059/0067 32

AUTHOR: Goryainov, L.

31  
B+1

TITLE: Methods for analyzing complex heat exchange into its separate components 21

SOURCE: Moscow. Institut inzhenerov zheleznodorozhnogo transporta. Trudy, no. 189, 1965. Issledovaniye teploobmena v teploenergeticheskikh ustanovkakh i v ustanovkakh dlya polucheniya poluprovodnikovykh materialov (Investigation of heat exchange in thermal power units and in equipment for producing semiconductor materials), 59-67

TOPIC TASS: heat exchange, thermodynamic analysis

ABSTRACT: This article examines existing methods of analyzing complex heat exchange, evaluates them critically and proposes several questions, which demand additional investigation. A preliminary discussion of some regularities of heat exchange is given. Methods discussed include: 1) the forced air method in which heated air is blown through the experimental section and the necessary measurements are made for obtaining the invariant dependence of convective heat exchange; 2) the method of measuring the molecular temperature of the medium near the heat sensing surface; 3) the two radiometer method based on measurements of the overall heat flux

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by two identically shaped instruments with different degrees of blackness of the heat sensing surface; 4) direct measurement of radiation output in which a special window of the experimental apparatus holds equipment for measuring the incident radiation; 5) measurement of the temperature and position of the radiation equilibrium layer in which the radiation component of heat exchange may be calculated when the incident radiation is isotropic, if the temperature of the radiation equilibrium layer is known. Reliable results can best be obtained by simultaneous analysis of heat exchange by several of the above methods and comparison of the results. Orig. art. has: 1 figure, 14 formulas.

ASSOCIATION: Institut inzhenerov zheleznodorozhnogo transporta, Moscow (Institute of Railroad Transportation Engineers)

SUBMITTED: 00

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Card 2/2

L 62552-65 EWT(1)/EPF(c)/DP(n)-2/EG(m)/ Pr-4/PS-4/Pu-4 - WY

ACCESSION NR: AT5016484

UR/2649/65/000/189/0103/0109

AUTHOR: Goryainov, L. A.; Beylin, V. I.; Pavlenko, V. A.

TITLE: Finding the Reynolds number in convective heat exchange relationships

SOURCE: Moscow. Institut inzhenerov zheleznodorozhnogo transporta. Trudy, no. 189, 1965. Issledovaniye teploobmena v teploenergeticheskikh ustanovkakh i v ustanovkakh dlya polucheniya poluprovodnikovyykh materialov (Investigation of heat exchange in thermal power units and in equipment for producing semiconductor materials), 103-109

TOPIC TAGS: Reynolds number, heat exchange, thermodynamic analysis

ABSTRACT: This article examines certain peculiarities which take place during various approaches to the determination of the Reynolds number. The numerical values of the Reynolds number are calculated from the formulas:

$$Re' = \frac{\omega d}{\nu}; \quad (1)$$

$$Re'' = \frac{Gd}{\mu f}; \quad (2)$$

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where  $w$  is the rate of motion of the fluid in m/sec;  $d$  is the decisive dimension in meters;  $\nu$  is the kinematic viscosity of the fluid in  $\text{m}^2/\text{sec}$ ;  $\mu$  is the dynamic viscosity of the fluid in  $\text{N}\cdot\text{sec}/\text{m}^2$ ;  $G$  is the mass flow of the fluid in  $\text{kg}/\text{sec}$ ;  $f$  is the cross section of the channel in  $\text{m}^2$ . In formula (1) the calculation is done by linear velocity, and in formula (2)--by mass flow. These two expressions are not identical in all cases. If the physical parameters refer to a temperature which is different from the mean temperature of the flow, then the values for  $Re$  calculated by (1) and (2) will differ. Formulas are derived relating these two expressions and examples are given to illustrate the use of these formulas. It is recommended that formula (1) should be used for forced airflow since there is a smaller scatter of points in this case when the temperature simplex is very different from unity. When the physical parameters relate to a temperature which differs from the flow temperature, the values of  $Re$  and invariant relationships differ when finding  $Re$  according to linear velocity and according to mass flow. There is less scatter of the experimental points when  $Re$  is calculated according to linear velocity. Orig. art. has: 3 figures and 12 formulas.

ASSOCIATION: Institut inzhenerov zheleznodorozhnogo transporta, Moscow (Institute of Railroad Transportation Engineers)

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SUB CODE: TD, ME

NO REF SOV: 010  
Card 2/2 *amm*

OTHER: 000

SOV/81-59-13-46029

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 13, p 253 (USSR)

AUTHORS: Goryainov, L.I., Kumskov, V.T.

TITLE: On the Convective Component of a Complex Heat Exchange at High Temperatures

PERIODICAL: Sb. Leningr. in-ta inzh. zh.-d. transp., 1958, Nr 160, pp 234 - 240

ABSTRACT: It has been found that the equations of convective heat emission, derived on the basis of the generalization of experimental data obtained at relatively low temperatures, cannot be applied without experimental checking to the calculation of heat emission in the complex process of heat exchange at relatively high temperatures; if the physical parameters are referred to the average temperature of the flow. In the application of the mentioned equations corrections must be introduced, e.g. in the form of a temperature simplex. It has been noted that the described method of using the equations of convective heat emission is suitable for the calculation of heat emission in the combustion chambers of boilers, in gas turbines and other heat-exchanging installations.

From the author's summary

Card 1/1

GORYAINOV, M.

Training of qualified workers for assembly-line production. Prof.-  
tekhn. obr. 18 no.1:3-6 Ja '61. (MIRA 14:2)  
(Assembly-line methods) (Vocational education)

GORYAINOV, M.

Let's improve the process of vocational training. Prof.-tekh. obr.  
20 no.1:16-19 Ja '63. (MIRA 16:2)  
(Vocational education)



GORYAINOV, M., inzhener.

Training trade-school pupils for Stakhanov methods. Proizv.obuch. 5 no.1:  
20-22 Ja '48. (MLRA 7:6)  
(Metal cutting--Study and teaching)

GORYAINOV, M.

Advice to the beginning workers on methods. Prof.-tekh. obr.  
22 no.1:27-28 Ja '65.

(MIRA 18:4)

GORYAINOV, MIKHAIL ABRAMOVICH

N/5  
741.416  
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1955

METODIKA PROIZDOVSTVENNOGO OBUCHENIYA TOKAREY-UNIVERSALOV  
(METHODS OF PRODUCTION TRAINING IN UNIVERSAL LATHE TURNING)  
1ZD. 2., PERER. 1 DOP. MOSKVA, TRUDREZERVIZDAT, 1955.

278, (2) P. ILLUS., DIAGRS.

BIBLIOGRAPHY: P. 277-(279)

GORYAINOV, M.

Inductive instruction. Prof.-tekh.obr. 12 no.1:10-12 J '55.  
(Technical education) (MLRA 8:3)

*GORYAINOV, M. A.*  
MUKIN, Isaak Moiseyevich; GORYAINOV, M.A., nauchnyy red.; KOPTEVSKIY, D.Ya., red.;  
RAKOV, S.I., tekhn.red.

[The young turner's reference manual] Spravochnik molodogo tokaria.  
Moskva, Vses.uchebno-pedagog.izd-vo Trudrezervizdat, 1957. 435 p.

(MIRA 10:11)

(Turning)

MUKIN, Isaak Moiseyevich; GORYAINOV, M.A., nauchnyy red.; LUKASHUK, V.A.,  
red.; RAKOV, S.I., tekhn.red.

[Manual for young laths operators] Spravochnik molodogo tokaria.  
Izd.2., ispr. i dop. Moskva, Vses.uchebno-pedagog.izd-vo Trudre-  
servizdat, 1959. 445 p. (MIRA 13:6)  
(Turning--Handbooks, manuals, etc.)

MUKIN, Isaak Moiseyevich; GORYAINOV, M.A., nauchnyy red.; ROMANOV, B.V.,  
red.; BARANOVA, N.N., tekhn. red.

[Manual for a young lathe operator] Spravochnik molodogo tokaria.  
3., ispr. i dop. izd. Moskva, Proftekhizdat, 1962. 479 p.

(MIRA 15:6)

(Lathes)

(Turning)

GORYANINOV, Mikhail Abramovich. Prinsipal uchastiye OBRSHADKO, B.I.,  
inzh.; GAGIN, B.S., nauchn. red.; BONDAROVSKAYA, G?V.,  
red.; TOKER, A.M., tekhn. red.

[Industrial training of lathe operators] Proizvodstvennoe  
obucheniye tokarei. Izd.3., perer. i dop. Moskva, Prof-  
tekhizdat, 1963. 299 p. (MIRA 17:1)



GORYAINOV, M.

programming and the use of audio-visual aids in vocational  
education. Prof. tekhn. obr. 21 no. 11, 6-10 N 164 (MIRA 18:2)

GORYAINOV, M.N. Cand. Agricult. Sci.

Dissertation: "Fertilizer and the Fat-Forming Process in the Seeds of a Sunflower." All-Union Sci Res Inst of Fertilizers, Agricultural Engineering and Soil Science imeni K.K. Gedroyets, 25 Nov 47.

SO: Vechernyaya Moskva, Nov, 1947 (Project #17836)

GORYAINOV, M.N.

MD ✓ Biochemical studies of the plants producing essential oils. M. N. Goryainov. *Russkomo-sichnye Kul'tury, Sbornik* (Moscow: Sel'khozgiz) 1953, 103-14; *Referat, Zhur., Khim.* 1954, No. 48190.—Effect of the light intensity on the accumulation and compn. of essential oils (I) in mint, and caraway, and the effects of humidity and temp. of soil and air on the amts. of I and carbohydrates, and the activities of plant enzymes in the mint leaves, have been studied. The light intensity is directly related to the accumulation of I in the plants, the process is further directly related to the synthesis of monoses and the synthetic activity of invertase during the 1st half of the vegetative growth. Micro methods are presented for the detn. of I in rose, lavender, and muscatel sage. B. Wlebiński

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S/169/62/000/011/010/077  
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AUTHORS: Levshin, A.L. and Goryainov, N.N.  
TITLE: Longitudinal seismic wave propagation in sandy rocks  
PERIODICAL: Referativnyy zhurnal, Geofizika, no. 11, 1962, 44-45,  
abstract 11A266 (Izv. vyssh. ucheb. zavedeniy, Geol.  
i razvedka, no. 4, 1962, 113-125)

TEXT: A study is made of the possibilities of determining the ground-water level in deserts through using seismic exploration. Some questions of elastic wave propagation in porous media are studied in addition. The wave pattern established in south-eastern Karakumy indicates that several types of longitudinal waves propagate in sandy strata. They include waves refracted in sandy strata, with a velocity that increases with depth in accordance with the exponential law to the power  $1/4.5$ , which agrees quite well with the law for the growth of the velocity in dry granular rocks; and refracted waves, reflected from the ground surface, the hodographs of whose phases are parallel. The velocity also depends on the absolute

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Longitudinal seismic wave ...

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datum-marks, this being related to the mechanism by which sands are formed. The velocities change in dry sand from 640-860 m/sec at the surface to 1150-1400 m/sec near the ground-water level. The average velocities obtained through direct well measurements vary approximately in the same range. The refracted wave attenuates sharply in the initial part of its path. The hodographs of waves, reflected from the surface of the water-saturated layer are curvilinear, and down to the ground-water level the effective velocities determined from them are close to the calculated average speeds in dry sandy strata. The hodographs of waves, refracted at the boundary of the water-saturated layer, are characterized by a sharp velocity jump and are practically parallel. The velocity ratio is 0.60-0.67. The boundary velocities corresponding to the refracting boundary are in the range 1820-2100 m/sec and vary if the depth of the refracting boundary changes. In the water-saturated medium the stratal velocity increases with depth more weakly than the boundary velocity, by approximately 1.5-fold. The probable reason for this is the loss of cohesion between particles in the water-saturated layer, in consequence of the solution of the cement. The velocity gradient

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Longitudinal seismic wave ...

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varies in the range 2.1-0.55 sec<sup>-1</sup>.

[Abstracter's note: Complete translation]

Card 3/3

GORYAINOV, O. A.

Avtomatika i telemekhanika [Automatic and remote control]. Moskva, Gos. bibl. SSSR, 1953. 48 p.

SO: Monthly List of Russian Accessions, Vol. 6 No. 9 December 1953

GORJAINOV, O.A.; RAYNES, R.L.; GINZBURG, S.A., redaktor; FRIDKIN, A.M.,  
tehnicheskij redaktor.

[Remote control] Teleupravlenie. Moskva, Gos. energ. izd-vo,  
1954. 511 p. (MLRA 7:12)  
(Remote control)



GORYAINOV, O. A.

"Principle of Construction of Remote Control Installations in Non-Filament Thyratrons" (Printsip postroyeniya ustroystv teleupravleniya na beznakal'nykh tiratronakh) from the book Telemechanization in National Economy, pp. 172-188, Iz. AN SSSR, Moscow, 1956

(Given at meeting held in Moscow, 29 Nov to 4 Dec 54 by Inst. of Automatics and Telemechanics AS USSR)

GORYAINOV, O.A.

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AUTHORS:

Shumilovskiy, N.N., Professor, Doctor of Technical Sciences,  
Gol'dfarb, L.S. Professor, Doctor of Technical Sciences,  
Babakov, N.A., Professor, Doctor of Technical Sciences,  
Goryainov, O.A., Docent, Candidate of Technical Sciences,  
Naumov, B.N., Docent, Candidate of Technical Sciences

TITLE:

Ya.Z. Tsypkin. Teoriya impul'snykh sistem (Theory of Impulse Systems).  
724 Pages, Price 23 Rubles 25 Kopecks. Gosudarstvennoye izdatel'stvo  
fiziko-matematicheskoy literatury (State Publishing House of  
Physics and Mathematical Literature), 1959

PERIODICAL: Elektrichestvo, 1960, No. 5, pp. 94-95

TEXT: This is a book review. The book belongs to those fundamental monographs which determine new trends in science and establish new scientific doctrines. The book contains the research results of the author in the field of the theory of impulse systems. Since 1948 the author has been dealing with the problems raised by the theory of intermittent control. He expanded this theory later and

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Ya.Z. Tsypkin. Teoriya impul'snykh sistem (Theory of Impulse Systems). 724 Pages, Price 23 Rubles 25 Kopecks. B007/B008  
 Gosudarstvennoye izdatel'stvo fiziko-matematicheskikoy literatury (State Publishing House of Physics and Mathematical Literature), 1959

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showed that the intermittent control is applicable to a wider class of technical systems, than the systems of automatic control. The author classified the various types of quantization of amounts and the types of impulse elements corresponding to them. The book consists of 6 chapters. A classification of the systems from the point of view of the methods for the transmission of signals in these systems is made in the introduction. The basic definitions are given in the 1st chapter and many characteristic examples of impulse systems are investigated. The mathematics for the investigation of impulse systems is given in the 2nd chapter. The theory of open impulse systems is explained in the 3rd chapter. The methods explained in the 3rd chapter are used in the 4th chapter for the investigation of a number of important impulse systems. The entire complex of problems from the theory of closed impulse systems is given in the 5th chapter. Typical impulse systems are analyzed in the 6th chapter. The book is written intelligibly, but it requires a certain theoretical preparation and knowledge. The present review was discussed and approved at the meetings of the kafedra "Avtomatika i tele-mekhanika" MEI (Chair of "Automation and Telemechanics" at the Moscow Institute

Card 2/3

Ya.Z. Tsypkin. Teoriya impul'snykh sistem (Theory of  
Impulse Systems). 724 Pages, Price 23 Rubles 25 Kopecks. B007/B008  
Gosudarstvennoye izdatel'stvo fiziko-matematicheskoy  
literatury (State Publishing House of Physics and  
Mathematical Literature), 1959

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of Power Engineering) and the kafedra "Avtomaticheskoy kontrol' i regulirovaniye"  
VZEI (Chair of "Automatic Control and Regulation" at the All-Union Correspondence  
Institute of Power Engineering).

Card 3/3

GORYAINOV, P.I., Petr Ivanovich; PESSLE', Mark Abramovich; FREBERG, A.,  
otvetstvennyy red.; TOLYPINA, O., red. izd-va; DZHATIYEV, S.,  
tekhn. red.

[Collection of problems on financing capital investments] Sbornik  
zadach po finansirovaniu i kreditovaniu kapital'nykh vlozhenii.  
Moskva, Gosfinizdat, 1957. 202 p. (MIRA 11:7)  
(Finance—Problems, exercises, etc.)

TOCHILIN, Mitrofan Stepanovich; GORYAINOV, Pavel Mikhaylovich;  
TOKAREV, V.A., doktor geol.-miner. nauk, otv. red.

[Geology and genesis of iron ores in the Imandra region of  
the Kola Peninsula] Geologiya i genezis zheleznykh rud Pri-  
imandrovskogo raiona Kol'skogo poluostrova. Moskva, Izd-vo  
"Nauka," 1964. 101 p. (MIRA 17:4)

GORYAINOV, V., prof.

Some memorable dates from the history of the use of electricity on ships. Mor. flot'19 no.2:40 P '59. (MIRA 12:3)

1. Leningradskoye vysshaye inzhenernoye morskoye uchilische im. Admirala Makarova.  
(Electricity on ships)

GORYAINOV, V.A.; RATTEL', K.N.; SMIRNOV, G.N., retsentsent.

[Ventilation and pneumatic transport in bast processing plants] Ventilatsiia i pnevmaticheskii transport na zavodakh pervichnoi obrabotki lubian'nykh kul'tur. Moskva, Gos. nauchno-tekhn. izd-vo Ministerstva promyshlennykh tovarov shirokogo potrebleniia SSSR, 1953. 212 p. (MIRA 7:7)  
(Bast) (Factories--Heating and ventilation)



GORJAINOV, V. A.

Stratigraphy of the Silurian Deposits in the Middle Reaches of the Vilyuy River in the Portion From the Estuary of the Appaya River to the Threshold of Malyy Khan

The author briefly expounds the stratigraphic sequence of the rocks of the Ordovician and Silurian, subdivided into four strata. He presents a small list of silurian brachiopods and corals for the purpose of establishing the age of the highest stratum. (RZhGeol, No. 5, 1955).

Uch. Zap. Saratovsk. un-ta, 38, 1953, 85-87.

SO: Sum. No. 744, 8 Dec 55 - Supplementary Survey of Soviet Scientific Abstracts (17)

GOBYAINOV, V.A., Cand Geol Min Sci -- (diss) "Stratigraphy  
and conditions of <sup>sedimentation</sup> ~~the accumulation of~~ deposits of the  
multicolored deposits of the <sup>can be</sup> ~~with~~ south of the Obshchiy  
Syrt and the Orenburg <sup>Peninsula</sup> ~~sub-Islands~~." Saratov, 1958, 23 pp  
(Min of Higher Education USSR. Saratov State Univ im N.G.  
Chernyshevskiy) 150 copies (KL, 42-58, 113)

- 13 -

GORYAINOV, V.A.; OCHEV, V.G.

Stratigraphy of Triassic sediments in the portion of the Ural  
Mountain region in Orenburg Province. Izv. vys. ucheb. zav.;  
geol. i razv. 7 no.4:16-22 Ap '64. (MIRA 18:3)

1. Saratovskiy gosudarstvennyy universitet.

GORBATOV, V.F.

Electrocoagulation as a method of treating hemangiomas.

Pediatrics 41 no.11:69-71 N°62

(MIRA 17:4)

1. Iz detskoy khirurgicheskoy kliniki ( zav. - prof. N.V.Zakharov)  
Saratovskogo meditsinskogo instituta.

GORBATOV, V. I.

APPROVED FOR RELEASE: 03/13/2001 OF CIA-RDP86-00513R000516410002-

BLANKS IN HYDRAULIC PRESSES." SUB 14 MAY 52, MOSCOW MACHINE-TOOL AND TOOL INST  
IMENI I. V. STALIN (DISSERTATION FOR THE DEGREE OF CANDIDATE IN TECHNICAL SCIENCES)

SO: VECHERNAYA MOSKVA, JANUARY-DECEMBER 1952

GORYKINCV, V. I.

Dissertation: "Investigation of Some Problems of Hydraulic Stamping and Compacting of Dies." Cand Tech Sci, Moscow Machine Tool and Tool Inst imeni I. V. Stalin, 5 May 54. (Vechernyaya Moskva, Moscow, 26 Apr 54)

SO: SUM 243, 19 Oct 1954

GORYAINOV, V.I., kani. tekhn. nauk

Investigating the stretch forming process. Sbor. MOSSTANKIN  
no.3:33-35 '55. (MIRA 13:3)  
(Sheet-metal work)

GORYAINOV, V.M., prepodavatel'

Shelterbelts as means for controlling dust storms in Stavropol Territory. Zemledelie 8 no.8:37-40 Ag '60. (MIRA 13:8)

1. Stavropol'skiy sel'skokhozyaystvennyy Institut.  
(Stavropol Territory--Dust storms)  
(Windbreaks, Shelterbelts, Etc.)

GORYAINOV, V. S.

"War Injuries of the Organs of Sight in the Great Fatherland War and Their Medical Treatment in an Army Area." Sub 19 Jun 51, Central Inst for the Advanced Training of Physicians.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.



GORJAINOV, V.S., kand.med.nauk

Use of imanin in the eye clinic. Vest.oft. no.5:78-81 '62.

(MIRA 15:12)

1. Kafedra glaznykh bolezney Ryazanskogo meditsinskogo instituta  
imeni akad. I.P.Pavlova.

(BACTERICIDES) (OPHTHALMOLOGY)

NIKULINA, N.B.; GORYAINOV, V.S.

Use of ethamine, a new local anesthetic preparation in ophthalmological practice. Nauch. trudy Riaz. med. inst. 15:113-115 '62.

(MIRA 17:5)

1. Kafedra glaznykh bolezney (ispolnyayushchiy obyazannosti zav. kafedroy - kand.med.nauk V.S.Goryainov) Ryazanskogo meditsinskogo instituta imeni Pavlova.

29550

S/106/61/C00/011/002/006

A055/A127

6.9400

AUTHORS: Tikhonov, V. I., and Goryainov, V. T.

TITLE: Effect of normal noise and limiters.

PERIODICAL: Elektrosvyaz', no. 11, 1961, 13 - 24

TEXT: This article deals essentially with the determination of the one-dimensional probability density of noises at the output of the filter-limiter-filter systems. An experimental device used for this determination is described. The normalization of the limited noises is also treated. The experimental device is shown in Figure 1. A normal ГВШ-1 (GVSh-1) noise generator is used as noise source (N. Gen.) generating noise with a spectrum within the  $100 - 2 \cdot 10^6$  cps range. The noise is applied to the resonance amplifier (Amp<sub>1</sub>), whose resonant frequency  $f_0 = 110$  kc and whose passband can vary by steps and take the following values:  $\Delta f_1 = 1.5, 3.75, 6.5, 11, 21, \text{ and } 38$  kc; the amplitude-frequency characteristics are well approximated by the Gaussian curves

$$K(\omega) = K_0 \exp \left\{ -\beta (\omega - \omega_0)^2 \right\} \quad (1)$$

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Effect of normal noise and limiters

The normal stationary noise with the energy spectrum determined by the amplitude-frequency characteristic of  $Amp_1$  acts upon the input of the symmetrical two-stage limiter (Lim.). The RMS-value of the noise at the limiter input is measured by a thermo-voltmeter consisting of a cathode follower (C.F.), a thermocouple (T.C.) and a galvanometer ( $Gal_1$ ). From the limiter output the noise is applied to the resonance amplifier ( $Amp_2$ ) tuned to  $f_0 = 110$  kc and whose passband is  $\Delta f_2 = 9$  kc. The noise is then applied to a photometric device for determining the one-dimensional probability densities. This device consists of an oscillograph (Osc.), a photoelectron multiplier (P.E.M.) and a galvanometer ( $Gal_2$ ) measuring the multiplier current. If a normal stationary quasi-harmonic noise

$$\xi(t) = A(t) \sin [\omega_0 t + \varphi(t)] = A(t) \sin \theta(t), \quad (2)$$

$A(t)$  being the envelope of the noise with the Rayleigh probability density

$$W_1(A) = \frac{A}{\sigma_\xi^2} \exp \left( -\frac{1}{2} \frac{A^2}{\sigma_\xi^2} \right) \quad (3)$$

and  $\varphi(t)$  being a random phase uniformly distributed in the interval  $(-\pi, \pi)$ , is acting on the input of an inertialess symmetrical limiter with a volt-ampere cha-

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Effect of normal noise and limiters

Characteristic  $\eta(t) = g[\xi(t)]$ , the noise  $\eta(t)$  at the limiter output will be,

$$\eta(t) = B(t) \sin \theta(t) \quad (4)$$

where the envelope  $B(t)$  is determined by the relations:

$$B(t) = \begin{cases} SA(t), & A \leq \alpha \\ H, & A > \alpha \end{cases} \quad (5)$$

$S = H/\alpha$  being the steepness of the limiter characteristic. The one-dimensional probability density for  $B(t)$  will be:

$$w_1(B) = \frac{B}{\sigma_1^2} \exp\left(-\frac{1}{2} \frac{B^2}{\sigma_1^2}\right) + N \delta(B - H), \quad B \leq H \quad (6)$$

where

$$\sigma_1^2 = S^2 \sigma_\xi^2 \quad (7)$$

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Effect of normal noise and limiters

$$\text{and } N = \exp \left( -\frac{1}{2} \frac{H^2}{\sigma_1^2} \right) \quad (8)$$

The combined probability density is:

$$W_2(B, \theta) = \frac{1}{2\pi} \left\{ \frac{B}{\sigma_1^2} e^{-\frac{1}{2} \left( \frac{B}{\sigma_1} \right)^2} + e^{-\frac{1}{2} \left( \frac{H}{\sigma_1} \right)^2} \delta(B - H) \right\}, \quad \begin{matrix} 0 \leq B \leq H, \\ -\pi \leq \theta \leq \pi \end{matrix} \quad (10)$$

Introducing new variable  $z = \sin \theta$  and  $\eta = B \sin \theta = Bz$ , the authors obtain the final formula for the one-dimensional probability density of the random signal  $\eta(t) = B(t) \sin \theta(t)$  at the output of the symmetrical limiter:

$$W_1(\eta) = \frac{1}{\pi \sqrt{H^2 - \eta^2}} e^{-\frac{1}{2} \left( \frac{H}{\sigma_1} \right)^2} + \frac{2}{\sqrt{2\pi} \sigma_1} e^{-\frac{1}{2} \left( \frac{\eta}{\sigma_1} \right)^2} \times \quad (16)$$

$$\times \left[ \Phi(v) - \frac{1}{2} \right], \quad |\eta| \leq H$$

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where

$$\Phi(V) - \frac{1}{2} = \frac{1}{\sqrt{2\pi}} \int_0^V e^{-\frac{1}{2}x^2} dx, \quad V = \frac{1}{\sigma_1} \sqrt{H^2 - \eta^2}. \quad (15)$$

Simplified formulae are obtained for the particular cases of weak medium and strong limiting. For weak limiting ( $\sigma_0 \gg \sigma_\xi$ ):

$$W_1(\eta) = \frac{1}{\sqrt{2\pi} \sigma_1} \exp \left\{ -\frac{1}{2} \left( \frac{\eta}{\sigma_1} \right)^2 \right\} \quad (18')$$

For medium limiting ( $\sigma_0 = \sigma_\xi$ ):

$$W_1(\eta) = \frac{1}{2H}, \quad |\eta| \leq H. \quad (18'')$$

For strong limiting ( $\sigma_\xi \gg \sigma_0$ ):

$$W_1(\eta) = \frac{1}{2} [\delta(H - \eta) + \delta(H + \eta)]. \quad (18''')$$

The analysis of the experimentally obtained graphs leads to the following conclu- X

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Effect of normal noise and limiters

sions: 1) for  $\nu = \frac{\sigma_k}{\sigma_0} < 0.3$ , the one-dimensional probability density of the noise  $\eta(t)$  is approximated satisfactorily by formula (18'); 2) for  $\nu = 1.2 \div 1.3$ , the noise at the limiter output can be considered as uniformly distributed in the interval  $[-H, H]$ ; 3) for  $\nu > 3$ , formula (18'') can be used for the determination of the probability density. Normalization of limited noises. The noise  $\eta(t)$  whose distribution differs from the normal one is normalized to a certain extent (when passing through amplifier Amp<sub>2</sub>), depending on the magnitude of the relative limiting threshold and on the relation between the passband of Amp<sub>2</sub> and the width of the energy spectrum of  $\eta(t)$ . It is expedient to choose the excess coefficient

$$Y_2 = \frac{M_4}{M_2^2} - 3 \quad (21)$$

as the quantitative criterion of the degree of approximation of the probability density to the normal one. In (21),  $M_2$  and  $M_4$  are, respectively, the central moments of the second and the fourth order of the noise  $\zeta(t)$  at the output of Amp<sub>2</sub>. The theoretical computation of these moments being difficult, an experimental method was resorted to, using the device of Figure 1. The one-dimensional

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probability densities of the noise  $\xi(t)$  at the output of a filter-limiter-filter system were determined for different relative limiting thresholds of the normal input noises and for different relations between the energy spectrum width of these normal noises and the passband of Amp<sub>2</sub>. The thus obtained experimental data made it possible to calculate  $M_2$  and  $M_4$ . The obtained graphs show that the excess coefficient decreases when the limiting threshold of the input noises  $\xi(t)$  increases. For large thresholds, the noise  $\eta(t)$  at the limiter output proves but little different from the normal one. For small values of the threshold, the noise  $\eta(t)$  differs sharply from the normal one and is substantially normalized by the linear amplifier Amp<sub>2</sub>. The last part of the article is a theoretical analysis of the noise spectrum at the output of the limiter. There are 9 figures, and 10 references: 8 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: J. Galejs. Signal-to-noise ratios in smooth limiters. "Trans.IRE.", 1959, No. 2, IT-5. R. F. Baum. "The correlation function of smoothly limited gaussian noise". "Trans. IRE", 1957, No. 3, IT-3.

SUBMITTED: July 19, 1961

Card 7/87

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36084

S/106/62/000/004/003/010  
A055/A101

9.3280

AUTHORS: Goryainov, V.T.; Kirillov, M.A.

TITLE: Experimental investigation of the effect of normal noises on the difference detector

PERIODICAL: Elektrosvyaz', no. 4, 1962, 21 - 27

TEXT: This investigation of the effect of stationary normal noises was undertaken for determining the one-dimensional probability densities and the average number of overshoots of the noise voltage at the output of a difference detector for a given relationship between the width of the energy spectrum of the input noise and the passband of the difference detector. The detuning of the center frequency  $f_0$  of the input noise energy spectrum with respect to the resonant frequency  $f_1$  of the detector was varied during the investigation. The schematical diagram of the measuring system is shown in Figure 2. The fluctuation noise supplied by the noise generator NG is fed into the difference detector DD through a wide-band amplifier (the connection diagram of the detector and of the amplifier is reproduced in the article). From the detector output, the fluctuation noise is applied to two measuring circuits I and II. The circuit II per-

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Experimental investigation of the effect of ....

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mits the determination of the one-dimensional probability density of the noise voltage with the aid of an oscillograph "CV-1" (SI-1), a photo-electron multiplier (PhEM) and a galvanometer  $G_2$  measuring the multiplier current. The circuit II determines the average number of noise-voltage overshoots per unit of time. It contains a level analyzer "AAAQ-1" (AADQ-1) and a registering device "PC-10 000" (PS-10 000). The level analyzer is a trigger device, operating every time when the investigated noise voltage exceeds the analyzer operating threshold. By varying this threshold and counting up the number of operations with the aid of the registering device, it is possible to determine the average number of noise overshoots per unit of time, provided that the analyzer resolution time is much shorter than the correlation time of the investigated noise. The RMS noise voltage at the input and output of the difference detector is determined with the aid of a special thermovoltmeter (cathode follower CF, whose load is the thermocouple TC); the thermocouple current is measured by the galvanometer  $G_1$ . Several graphs are reproduced, showing the normalized one-dimensional probability density of the noise voltage at the output of the detector and the average number of noise overshoots. The authors compare the thus obtained experimental results with the theoretically calculated average number of overshoots at the output of the usual detector of the envelope working in linear detection operating conditions. The

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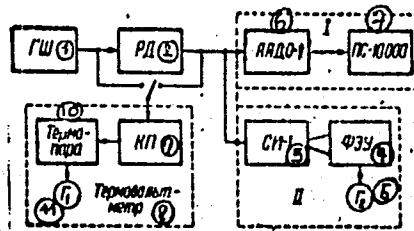
Experimental investigation of the effect of ....

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maximum number of noise overshoots at the difference detector output is sometimes 25 + 30% less than the maximum number of noise overshoots at the output of the usual detector. The Soviet personalities mentioned in the article are: V.I. Tikhonov and B.R. Levin. There are 8 figures and 2 Soviet-bloc references.

SUBMITTED: May 26, 1961

Figure 2: (1) N G; (2) D D; (3) SI-1; (4) PhEM; (5)  $G_2$ ; (6) AADO-1; (7) PS-10 000; (8) thermovoltmeter; (9) C F; (10) T C; (11)  $G_1$ .



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TIKHONOV, V.I.; GORYAINOV, V.T.

Concerning V.I. Tikhonov's and V.T. Goriainov article "Effect of normal noise on a limiter." Elektrosviaz' 16 no.8:72 Ag '62.

(MIRA 15:9)

(Radio filters) (Radio detectors) (Tikhonov, V.I.,  
(Goriainov, V.T.)

8/108/63/018/003/001/008 D201/D308

AUTHOR: Goryainov, V. T., Member of the Society  
(see Association)

TITLE: Experimental analyses of overshootings of  
smoothed envelope by quasi-harmonic noise

PERIODICAL: Radiotekhnika, v. 18, no. 3, 1963, 3-10

TEXT: The author describes a device for oscilloscope observations of a smoothed envelope of quase-harmonic noise. The device has a double-frequency response of the 2nd IF amplifier approximated by a Gaussian curve. The method of oscillogram processing for determining the statistical characteristics of the envelope overshooting is given. The experimental results of determining the distribution of maxima maximorum in forming a smoothed envelope of the sum of the signal and normal noise are given. The results show that as the duration of forming the envelope increases, the distribution functions of maxima.

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Experimental analyses of...

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maximorum becomes narrower and shifts towards the large values of overshootings with the distribution functions of minima minimorum shifting towards smaller values of overshootings. With  $T \rightarrow 0$  both classes of functions have the same limit. The above results are given physical interpretation. There are 7 figures.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A. S. Popova (Scientific and Technical Society of Radio Engineering and Electrical Communications im. A. S. Popov)

SUBMITTED: January 30, 1962

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GORYAINOV, V.T.

Distribution of the overshoot duration of the smoothed envelope  
of quasiharmonic noise. Radiotekhnika 18 no.8:3-9 Ag '63.  
(MIRA 16:10)

1. Deystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva  
radiotekhniki i elektrosvyazi imeni Popova.



L 27828-66 ENT(d)

ACC NR. AP6004826

SOURCE CODE: UR/0108/66/021/001/0031/0046

AUTHOR: Tikhonov, V. I. (Active member); Goryainov, V. T. (Active member)

ORG: Scientific and Technical Society of Radio Engineering and Electrocommunication  
(Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi)

TITLE: Detecting random signals <sup>37</sup><sub>B</sub>

SOURCE: Radiotekhnika, v. 21, no. 1, 1966, 31-46

TOPIC TAGS: signal detection, random signal, signal noise separation

ABSTRACT: Based on 1929-63 Soviet and 1937-63 Western publications, an extensive review is presented of the signal-plus-fluctuating-noise detection by amplitude, frequency, and phase detectors. The Amplitude-detector Section covers inertialess detectors (linear, square-law), inertial, and envelope detectors. The Frequency-detector Section covers inertialess and inertial detectors, as does the Phase-detector Section. Final formulas are given, and curves of the average value, dispersion, correlation function, and single-variate probability density of the output voltage of the above detectors are shown. In some cases (inertial detectors), for lack of theoretical formulas, experimental data is presented. "K. B. Chelyshev, V. P. Sokolova, I. F. Zaroshchinskiy and Yu. G. Shchors took part in the experiments involved." Orig.

art. has: 13 figures and 65 formulas.

SUB CODE: 09 / SUBM DATE: 29Oct63 / ORIG REF: 036 / OTH REF: 027

Card 1/1 <sup>JB</sup>

UDC: 621.376

GORJAINOV, V.Yu., prof. (Leningrad)

E.P. Tveritinov, founder of Russian naval electrical engineering.  
Elektrichestvo no. 12:78-81 D '60. (MIRA 14:1)  
(Tveritinov, Evgenii Pavlovich, 1850-1920)

(N) L 27325-66

ACC NR: AMK-001051

Monograph

UR/

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Bernshteyn, M. B. (Docent); Goryainov, V. YU. (Professor); Deniscov, V. V. (Engineer, Captain); Khomyakov, N. M. (Doctor of Technical Sciences, Professor)

041

Electrical engineering and electrical equipment for ships (Elektrotehnika i elektrooborudovaniye sudov) Moscow, Izd-vo "Transport," 1964. 504 p. illus., biblio.  
Errata slip inserted. 10,300 copies printed

TOPIC TAGS: electrical engineering, marine equipment, electric equipment, power supply, power plant

PURPOSE AND COVERAGE: This book has been approved by the Department of Educational Institutions of the Ministry of Sea Transport as a textbook for students of mechanical specialties of maritime and Arctic schools of the ministry. It may also be useful to crew members concerned with operation of shipboard electrical equipment. The book deals with basic information on the principles of electrical engineering and magnetism. Characteristic features of electromagnetic energy, methods of its generation, transmission, and practical applications aboard ship are discussed. Circuit diagrams of shipboard electric drive controls are given.

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SUB CODE: 09, 13/ SUBM DATE: 05Nov64/ ORIG REF: 018/

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25 (2)

SOV/92-58-10-5/30

AUTHOR: Goryainov, Ya. M., Chief Mechanic

TITLE: The V2-300 Engine Operates on Oil Well Gas (V2-300 rabotayet na poputnom gaze)

PERIODICAL: Neftyanik, 1958, Nr 10, pp 6-9 (USSR)

ABSTRACT: The author states that in drilling operations the V2-300 diesel engine, which consumes a great quantity of scarce liquid fuel, is most frequently used. If some of these diesels were converted into engines operating on natural gas, a considerable quantity of diesel fuel would be saved. For this reason V.N. Kovalevich, mechanic of the No. 6 oilfield of the Stanislavneft' Petroleum Administration, suggested that the above engine be remodeled so as to enable it to operate on natural gas. In 1956 the remodeled V2-300 engine was tested at the PES-190 electric power plant equipped with a 190 kwt generator. Spart plug ignition was successfully used to start the remodeled engine, the maximum rating capacity of which was 330 hp. It was found, however, that the exhaust gas temperature reached 540° C and oil temperature 100° C; therefore, it was deemed necessary to lower it. Since

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The V2-300 Engine Operates on Oil Well Gas

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efforts to reduce this temperature failed, it was decided to leave the diesel engine unchanged and to equip it only with the electric ignition system and natural gas supply system. At present 4 remodeled engines consuming natural gas operate at enterprises of the Stanislavneft' Administration. In one of these engines, which drives the 4MGR pump, the compression ratio was lowered from 15 to 13, and 18 mm automobile spark plugs were used. The author describes the gas supply system of the remodeled engine and shows it in Fig. 1. The mixture of gas with air occurs in a chamber of the equipment shown in Fig. 2. The gas-air mixture is controlled by a throttle valve. The volume of the gas-air mixture changes automatically by controlling the rpm. The 12 volt battery (Fig. 3), described by the author in detail serves as an ignitor. Performance characteristics of the V2-300 diesel engine remodeled to operate on natural gas are given in Fig. 3, 4 and 5. The basic parameters of this engine which operates on natural gas and produces 8000-10000 cal/m<sup>3</sup> are as follows: rated capacity at 1500 rpm 300 hp, maximum capacity 330 hp, minimum idle running rpm 500-550, maximum compression 70 kg/cm<sup>2</sup>, spark advance 27-30

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The V2-300 Engine Operates on Oil Well Gas

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degrees, gas consumption from 46 m<sup>3</sup>/h to 90 m<sup>3</sup>/h, temperature of exhaust gas 420°-540° C. The experience of the Stanislavneft' Petroleum Production Administration indicates that such engines may be successfully used for driving the U8-3 pump of the 5-D drilling rig. There are 5 figures.

ASSOCIATION: NPU Stanislavneft' (The Stanislavneft' Petroleum Production Administration)

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GORYAINOV, Yu. V.  
BOROVSKIY, P. V.

PHASE I BOOK EXPLOITATION

SOV/6206 75

Konferentsiya po teorii plastin i obolochek. Kazan', 1960.

Trudy Konferentsii po teorii plastin i obolochek, 24-29 oktyabrya 1960. (Transactions of the Conference on the Theory of Plates and Shells Held in Kazan', 24 to 29 October 1960). Kazan', [Izd-vo Kazanskogo gosudarstvennogo universiteta] 1961. 426 p. 1000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Kazanskiy filial. Kazanskiy gosudarstvennyy universitet im. V. I. Ul'yanova-Lenina.

Editorial Board: Kh. M. Mushtari, Editor; P. S. Isanbayeva, Secretary; N. A. Alomyaev, V. V. Bolotin, A. S. Vol'mir, N. S. Ganiyev, A. L. Gol'denveyzer, N. A. Kil'chevskiy, M. S. Kornishin, A. I. Lur'ye, G. N. Savin, A. V. Sachenkov, I. V. Svirskiy, R. G. Surkin, and A. P. Filippov. Ed.: V. I. Aleksagin; Tech. Ed.: Yu. P. Semenov.

PURPOSE: The collection of articles is intended for scientists and engineers who are interested in the analysis of strength and stability of shells.

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Transactions of the Conference (Cont.)

SOV/6206

75

COVERAGE: The book is a collection of articles delivered at the Conference on Plates and Shells held in Kazan' from 24 to 29 October 1960. The articles deal with the mathematical theory of plates and shells and its application to the solution, in both linear and nonlinear formulations, of problems of bending, static and dynamic stability, and vibration of regular and sandwich plates and shells of various shapes under various loadings in the elastic and plastic regions. Analysis is made of the behavior of plates and shells in fluids, and the effect of creep of the material is considered. A number of papers discuss problems associated with the development of effective mathematical methods for solving problems in the theory of shells. Some of the reports propose algorithms for the solution of problems with the aid of electronic computers. A total of one hundred reports and notes were presented and discussed during the conference. The reports are arranged alphabetically (Russian) by the author's name.

Card 2/14

Transactions of the Conference (Cont.)

SOV/6206 3

Ganiyev, N. S. Inverse Problems of Bending of Shells  
of Rectangular Plan

107

Gnatykin, V. N. Axially Nonsymmetrical Deformation of  
a Shallow Spherical Shell

113

Gmuni, V. Ts. On the Boundaries of Dynamic Instability  
of Shells

117

Gontkevich, V. S. Natural Vibrations of Orthotropic  
Cylindrical Shells

124

Goncharenko, M. V. Statistical Method in the Problem  
of Pure Bending of a Cylindrical Shell

130

Goryainov, Yu. V., Yu. I. Kadashevich, and I. L. Mironov.  
On the Hydrodynamic Forces Caused by the Dynamic  
Buckling of Cylindrical Shells Immersed in a Liquid

137

Card 6/14

GORYAINOVA, A.V., kandidat tekhnicheskikh nauk.

Use of nonmetal chemically stable materials for the equipment of  
sulfite woodpulp production. Bum.prom. 32 no.1:22-25 Ja '57.

1.Nauchno-issledovatel'skiy institut khimicheskogo mashinostroyeniya.  
(Woodpulp industry--Equipment and supplies)

SOV/122-59-2-13/34

AUTHOR: Goryainova, A.V., Candidate of Technical Sciences

TITLE: The Use of Plastics in Chemical Machine-Building (Raboteniye plastmass v khimicheskoy mashinostroyeni)

PERIODICAL: Vestnik Mashinostroyeniya, 1959, Nr 2, pp 37-39 (USSR)

ABSTRACT: Various chemically resistant plastics are described:  
Faolite: a thermosetting phenol-formaldehyde asbestos composition available in sheet form and as uncured raw stock. Easily machinable and can be bonded. Resistant to acids of medium concentration but not to highly oxidizing media. Can be used to 150 to 160°C.  
Vinyl plastics: frequently used where greater chemical resistance is required than that of faolite. Stable to alkalis, hydrofluoric acid and H<sub>2</sub>SO<sub>4</sub> + HCl mixtures. Working temperature not above 40 to 60°C. Can be formed on wooden tools. A storage vessel and column and pump from vinyl plastic are illustrated in Fig 1 and 2.  
Polyethylene: good stability at low temperature to the majority of inorganic acids and alkalis. Can be heat sealed and used for lining metal surfaces. Can be sprayed on to metal and other surfaces at a rate of 1.2 to

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SOV/122-59-2-13/34

# The Use of Plastics in Chemical Plant

1.5 square metres per hour to a thickness of 0.5 mm using a pistol developed at NIIKhMASH.

Polystyrol: transparent thermoplastic with rather lower strength than polyethylene, easily formed and useful for transparent vessels but not suitable for pressure vessels as it is liable to fissuring through embrittlement. Shock resisting elastic polystyrol is now available for lining purposes. Fig 3 illustrates a refrigerator door lined with elastic polystyrol.

P.T.F.E. : extremely high chemical resistance.

Available in two forms, "Flouoroplast 3" and "Flouoroplast 4", the former  $CF_2 = CFCl$  and the latter  $CF_2 = CF_2$ . "Flouoroplast 4" is comparatively soft and will cold-flow at loads of  $30 \text{ kg/cm}^2$ . Can be used from  $-195$  to  $+250^\circ\text{C}$ . "Flucroplast 3" is usable between  $-195$  and  $+100^\circ\text{C}$  in unloaded condition and can be used in the form of suspensions for corrosion protection of metallic surfaces. There are 3 figures.

Card 2/2

PHASE I BOOK EXPLOITATION SOV/5708

Goryainova, Avgusta Vasil'yevna

Stekloplastiki v mashinostroyeni (Glass-Reinforced Plastics in Machine Building) Moscow, Mashgiz, 1961. 214 p. Errata slip inserted. 10,00 copies printed.

Reviewer: A. S. Gulyayev, Engineer (Deceased); Ed.: Ya. G. Alaverdov, Engineer; Tech. Eds.: T. F. Sokolova and L. P. Gordeyeva; Managing Ed. for Literature on Chemical and Textile Machine Building: V. I. Rybakova, Engineer.

PURPOSE : This book is intended for technical personnel in machine building.

COVERAGE: Fundamental information on the physicochemical and mechanical properties of glass-reinforced plastics is presented. Equipment and techniques for molding glass-reinforced plastics into various shapes are described. Examples of the application of glass-reinforced plastics in machine building and other

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Glass-Reinforced Plastics in (Cont.)

SOV/5708

branches of industry are given. No personalities are mentioned. There are 91 references: 58 English, 18 Soviet, 10 German, and 5 French.

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Ch. I. Glass-Reinforced Plastics and Fibrous-Glass Reinforcements	5
1. General information on glass-reinforced plastics	5
2. Fibrous-glass reinforcements	9
3. The treatment of fibrous-glass materials to improve the adhesive qualities of the binder	27
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L 10706-63

EPR/EWP(j)/EPP(c)/EWT(m)/BDS--AFFTC/ASD--Ps-Li/Pc-Li/Pr-Li--RP/KW

ACCESSION NR: AP3001645

S/0063/63/008/003/0245/0260

AUTHOR: Goryainova, A. V.

TITLE: Plastics as construction materials

SOURCE: Vsesoyuznoye khimicheskoye obshchestvo. Zhurnal, v. 8, no. 3, 1963, 245-260

TOPIC TAGS: thermoplastic materials, polyethylenes, polypropylenes, polyformaldehyde, foam plastics, Teflon, polyamides, thermosetting materials, cloth laminates

ABSTRACT: The article contains a broad survey of plastics which can be used as construction material. The plastics industries of the U.S.A., Italy, Holland, Federal German Republic, France, and England are compared to that of the SSSR. The various properties of thermoplastic materials, polyethylenes, polypropylenes, polyformaldehyde, foam plastics, Teflon, polyamides, thermosetting materials, and cloth laminates are described in detail. Authors note the following trends in the use of plastics for construction purposes: (i) manufacture of apparatus, units and parts for machines from plastics, which are the most suitable materials for obtaining the required design; (ii) the production of chemically-stable apparatus

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ACCESSION NR: AP3001645

from plastics which can be substituted for high-alloy stainless steels and scarce non-ferrous metals; (iii) plastics are being used in all other cases where an economy can be attained through their use as compared to the materials used previously. Orig. art. has: 6 figures and 10 tables.

ASSOCIATION: none

SUBMITTED: 000

DATE ACQ: 01Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 006

OTHER: 010

ja/

Card 2/2

BORODINA, N.A.; GORYAINOVA, A.V., kand.tekhn.nauk

Some practical characteristics of graphite heat exchangers. Zhur.  
VKHO 10 no.1:58-66 '65. (MIRA 18:3)